What Is The Impact Of AI On Your Business?

What Is The Impact Of Artificial Intelligence On Your Business?

It seems everywhere we look today, we find technology with artificial intelligence. Its acceptance into society is relatively new despite the fact that artificial intelligence itself is not a new concept. The field first started in 1956, but it took many years to become significant in our technological world.

In business, there are many AI applications. AI is such a broad term that encompasses any computer software that engages in a humanlike activity, that you have to dig a bit deeper into the specifics to learn more about its impact on your business.

Machine Learning

Machine learning is one of the most common types of AI used for business today. It processes vast amounts of data quickly. the algorithms learn over time to get better at what they do the more often they do it. Present more information to a machine learning algorithm and its modeling should improve. Machine learning is useful for processing massive amounts of information that is increasingly captured by devices and converting them into something digestible for humans.

For example, if you're managing a manufacturing facility, your equipment is likely hooked to your network. Your connected devices feed a stream of data about functionality, production, and other details into a central location. It's too much data for a human to ever look through and even if I could, they would more than likely missed the majority of the patterns. Machine learning can step in to rapidly analyze the data as it comes in to find patterns and anomalies. equipment in the plant is not working as efficiently as possible, a machine learning algorithm can catch it and notify the appropriate staff that it's time for some preventive maintenance or repair.

Machine learning is also a broad category. Developing artificial neural networks – an interconnected website of artificial intelligence nodes – has built what is known as "deep learning."

Deep Learning

Deep learning is a more specific version of machine learning that relies on those neural networks to engage in nonlinear reasoning. This is essential to conduct more advanced functions such as fraud detection. It accomplishes best by analyzing a range of factors at the same time. For instance, for a self-driving car to work, it must identify, analyze, and respond to several factors all at once.

Deep learning algorithms help self-driving cars contextualize the information their sensors pick up such as the distance of other objects, the speed they're moving, and a prediction of where they will be in 5 to 10 seconds. This information is calculated side-by-side so that a self-driving car can make decisions like when to change lanes.

Deep learning has a lot of potential in business and is likely to be more common in the near future. Older machine learning algorithms tend to plateau in terms of capability after a certain amount of data has been captured. These learning models, on the other hand, continue to improve their performance as more data is received which makes deep learning the far more scalable and detailed approach.

There are three neural network techniques that are growing in popularity today – each of them suitable for certain types of problems.

Feed-forward neural networks

This is the simplest kind of artificial neural network. Information moves in one direction only – forward – from the input layer through hidden layers to the output layer. There are no loops in this network. The first network of this kind was proposed in 1958 by AI Pioneer Frank Rosenblatt. Though the idea is not new, advances in computer power, trading algorithms, and available data produced higher levels of performance than previously possible.

Recurrent neural networks

Recurrent neural networks or RNNs, are artificial neural networks whose connections between neurons include loops. They are well suited for processing sequences of inputs. In November 2016, Oxford University researchers reported that a system based on RNN and convolutional neural networks achieved 95% accuracy and reading lips, greatly outperforming experienced human lip readers who tested at only 52% accuracy.

Convolutional neural networks

Convolutional neural networks, or CNNs, are artificial neural networks where the connections between neural layers are inspired by the organization of the animal visual cortex. This is the portion of the brain that processes images so CNN's are well suited for perceptual tasks.

> *Artificial intelligence is not intended to replace human intelligence and innovation but is meant to support humans in their work.*

AI and Today's Business Landscape

Currently, AI has a hard time completing commonsense tasks in the real world. When it comes to translating text from one language to another, for instance, "The teacher is working" and "The television is working" presents two definitions for the word "working." While some machines will appropriately translate the two with natural language processing, what works in simple instances like this generally fails and more complex issues. This is because the computer programs perform simple language tasks by manipulating short phrases or separate words but lack a deeper understanding and focus on the short-term results.

AI is far better at data analysis than a human brain possibly could be. Artificial intelligence software can analyze massive datasets and return courses of action to the human user. Humans can use AI to help see the possible consequences of each action thereby improving the decision-making process and ultimately streamline multiple aspects of the business.

Benefits of AI Technology

With the right AI solutions, you can make improvements in several areas of your

business. For instance, you can implement chatbots to help improve customer experience. You'll provide your customers with a self-service option that leaves your customer support team open for more complex tasks. Together, this helps improve the customer relationship.

You can improve your cybersecurity by having machines monitor your network status all the time and alert you to any issues in real-time. Take for example, how Amazon uses big data to bring personalization to the Amazon shopping experience.

Automating business activities allows organizations to improve performance by reducing human errors, while also improving speed and quality. In some situations, it makes it possible for businesses to achieve outcomes that go beyond human capabilities.

With currently demonstrated technologies, less than 5% of occupations are candidates for full automation but nearly every occupation has partial automation potential so a portion of the activities could be automated and allow the human staff to focus on things that cannot be. According to McKinsey, about half of all the activities people are paid to do in the global workforce could be potentially automated by adapting current technology amounting to nearly $15 trillion in wages.

The activities most likely to be automated other than data collection and processing are physical ones performed in highly structured and predictable environments. In the United States., this accounts for 51% of economic activity, accounting for nearly $2.7 trillion in wages. These activities are most common in the hospitality industry, manufacturing, and retail trade. Automation potential isn't just left for the low-skill work.

Automating processes leaves humans to do other kinds of work to complement the work machines are doing. For instance, automating your procure-to-pay process

leaves your procurement staff with more time to focus on finding suppliers, optimizing the supply chain, and contract negotiations, rather than handling purchase orders all the time. The use of AI takes care of repetitive tasks to give you a competitive advantage because you're focused on other important tasks within your company that require human intervention.

The time saved with automation can be invested in other activities to help businesses grow, regardless of industry.

The Future of AI and Business

Though it's difficult to say how AI technology will continue to develop, experts see the common sense tasks becoming easier for computers to process allowing robots to become more useful in day-to-day life. It's predicted that AI will remove the two-dimensional screen form of digital technology we are also familiar with. Instead, the main user interface is the physical environment around an individual.

Will AI Replace Human Employees?

With all the automation AI can currently perform, some are convinced that machines will force humans to become obsolete. Many experts deny that AI will bring automation to so many jobs that millions of people will find themselves out of work, while other experts disagree.

At this point, it is changing the structure of the workforce by creating a knowledge-based economy and leveraging that to create better automation to improve life. AI may end up replacing certain jobs such as hedge fund managers, business and analysts, and maybe even lawyers. However, the shift to AI-based systems will also require the economy to add jobs that facilitate the transition.

It is reasonable to say that AI will create more wealth than it destroys but it is not

going to be equitably distributed at first. Tax accountants won't get fired one day and meet the robot that is going to sit at a desk The next. Instead, the next time a tax accountant applies for a position, it will be more difficult to find one.

The pace of automation and its impact on employment will vary across different activities, jobs, skill levels, and wage levels. Factors that determine the pace of the extent of automation include the ongoing development of technology, the cost of Technology, competition with labor such as skills and supply and demand dynamics, along with social and regulatory acceptance. McKinsey's scenario suggests that 50% of today's work activities could be automated by 2055 but this may happen up to 20 years earlier or later depending on a number of factors including other economic conditions.

Integrating more AI and process automation into the workplace will fragment many workflows and create many human jobs to help integrate them. Those that are displaced by AI will be able to find other employment. Many workers will have to change careers and business processes are expected to change. The scale of shifts in the labor force will occur over many decades and it isn't without precedent. In the 20th century, we saw a long-term shift toward technology in the agriculture industry in developed countries. It didn't create a mass long-term unemployment because it coincided with the creation of new types of work.

In truth, analysis shows that humans will still be needed in the workforce to reach the estimated total productivity gains. Humans will have to work alongside machines, and this will alter the workplace because of the cooperation required between technology and workers.

No matter what the future holds for AI, business owners need to embrace the new technology where possible in order to stay ahead of the curve. Failure to make use of AI systems and cognitive technology along with the data analytics and other benefits they offer could easily put many startups and business executives out of work simply because the competition forced them out of the market.

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